

# MMSD4148

PRV : 100 Volts  
Io : 200 mA

## FEATURES :

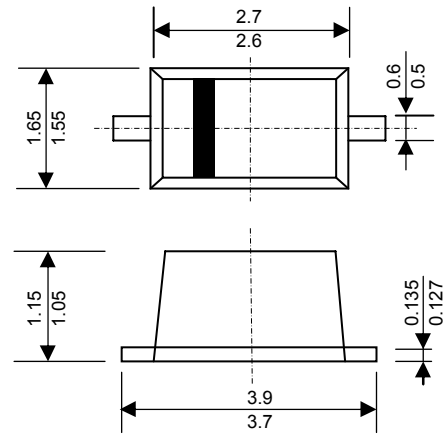
- \* High breakdown voltage
- \* Fast speed switching time
- \* SOD-123 Surface mount package ideally suited
- \* Pb / RoHS Free

## MECHANICAL DATA :

- \* Case : SOD-123 plastic Case
- \* Weight : approx. 0.01 g

## SWITCHING DIODE

### SOD-123



Dimensions in millimeters

## MAXIMUM RATINGS AND THERMAL CHARACTERISTICS (Ta = 25 °C unless otherwise noted)

Parameter	Symbol	Value	Unit
Maximum Continuous Reverse Voltage	$V_R$	100	V
Maximum Peak Forward Current	$I_F$	200	mA
Maximum Peak Forward Surge Current	$I_{FSM}$	500	mA
Total Power Dissipation, FR-5 Board Ta = 25 °C (Note 1)	$P_D$	425	mW
Derate above 25 °C		3.4	mW/°C
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	290	°C/W
Junction and Storage Temperature Range	$T_J, T_{STG}$	-55 to +150	°C

## ELECTRICAL CHARACTERISTICS (Ta = 25 °C unless otherwise noted)

Parameter	Test Condition	Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage	$I_R = 100 \mu A$	$V_{(BR)}$	100	-	V
Forward Voltage	$I_F = 10 mA$	$V_F$	-	1	V
Reverse Current	$V_R = 20 V$	$I_R$	-	25	nA
	$V_R = 75 V$		-	5.0	$\mu A$
Diode Capacitance	$V_R = 0 V, f = 1 MHz$	$C_T$	-	4.0	pF
Reverse Recovery Time	$I_F = I_R = 10 mA$	$T_{rr}$	-	4.0	ns

### Note :

(1) FR-5 = 1.0 oz Cu, 1.0 in<sup>2</sup> pad

## RATINGS AND CHARACTERISTIC CURVES ( MMSD4148 )

FIG.1 - POWER DERATING CURVE

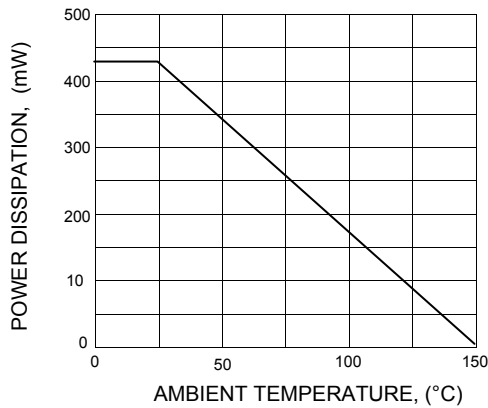


FIG.2 - TYPE CAPACITANCE VS. REVERSE VOLTAGE

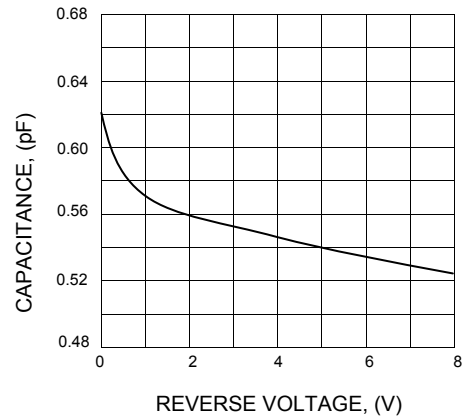


FIG.3 - FORWARD CHARACTERISTICS

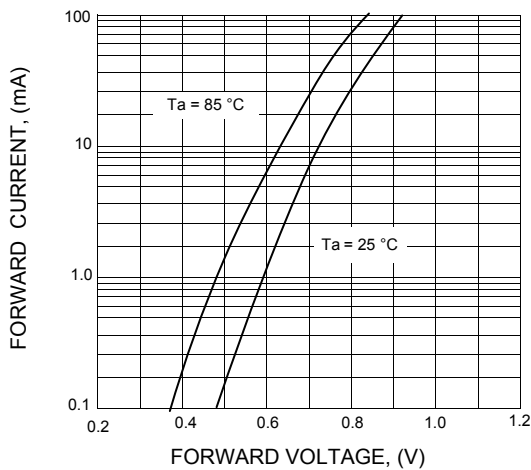


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

